

History

John L. Todd: Canada's first professor of parasitology

A. MURRAY FALLIS, MD

In 1816 John Todd bid farewell to his wife and parents, left Omagh, County Tyrone, Ireland, and, with great expectations, boarded a ship that was to land him weeks later in New York. His high hopes in this land of opportunity were soon dispelled. The streets were not lined with gold, and war with Britain had only recently concluded. Signs saying "No Irishmen or Jews need apply", told the grim story. Nevertheless, Todd persevered and found work, first as a carter and then as a butler in a "gentleman's house". His wife and parents joined him later.

Life for the Irish in New York was far from ideal. They met periodically to consider plans for their welfare. Officials in Toronto Township, near Brampton, were aware of their plight. Part of the township was surveyed in 1819, and some of the land was made available to distressed Irishmen in New York, who could apply for grants through the British Consul. On May 1, 1819, 29 Irishmen set out for Upper Canada, or what was then called "the lone land habited by Indians and wild beasts".

John Todd and his relatives must have known of this generous offer. But it wasn't until a year later that Todd decided to leave "the sidewalks of New York" to settle on one of the bush farms on Lot 14, Concession I, Toronto Township. Pioneering life was grim, but with courage and perseverance he and his wife began to turn the wilderness into arable land. At the same time they raised a family of nine.

The second son, Jacob Hunter Todd, born in 1827, must have inherited some of his father's pioneering spirit, for in 1862 he headed

West, via Panama, for Victoria, the gateway to beautiful British Columbia. Hundreds from all over the world flocked there after gold had been discovered in the Fraser Valley. With prospectors, land speculators and others of questionable character — including "the professor", the man who played the piano in the house of ill repute — the population of Barkerville (named after William Barker, who in 1851 had found gold in the Cariboo) swelled.

In 1906 Sir William Osler discussed with Principal Peterson of McGill and Sir William MacDonald the possibility of someone organizing a department of medical zoology to consider the whole range of parasitism. He suggested that John Todd would be a suitable candidate . . .

Jacob Todd, realizing the people would need food, opened a general store in Barkerville and acquired a share in a mine on Lightning Creek. After 10 years he had amassed a small fortune and in 1874 he returned to Victoria and opened a store and a salmon-canning factory.

However, life was not without its tragedies. "A light of his life" was extinguished when his wife and two children died. However, 7 years later he struck another match and married Rosanna Wigley, one of 13 children.

Infant mortality was high, and Todd's first three children by Ro-

sanna died in infancy. "It is perhaps surprising", his granddaughter wrote later, "in view of these sad experiences that when Rosanna was approaching the end of her fourth pregnancy, Jacob decided to take her for the usual buggy ride into the country. The date was September 10, 1876." When well outside the town, signs of an impending birth became increasingly evident and here, by the side of the road, John Lancelot Todd was born. The loving care of a mother dispelled fear of relatives for his survival. As he grew his capable and devoted mother, who had been a teacher, gave him the equivalent of the education he would normally receive at primary school. By the age of 13 he was accepted into Upper Canada College. Boyhood days at Victoria clearly made a lasting impression on John Lancelot. For years, even after receiving his medical education, he wrote of returning to the beautiful land of his birth with a view to the sea and the mountains. Time and circumstance dictated otherwise.

Progress at Upper Canada College was gratifying. He did well although one master wrote, "he was inclined to be troublesome". His housemaster, Stephen Leacock, with whom he established a life-long friendship, was concerned with his progress in French and German and his lack of concentration. Such shortcomings were offset, however, by his avid interest in literature.

Nearing graduation his thoughts turned, with parental prompting, to a future career. Law and medicine appeared the alternatives. Correspondence suggests that the parents preferred him to study law. He wrote home to say: "... in medicine a constant interest is maintained by new diseases appearing and by new ways of treating old ones. So medi-

Dr. Fallis is a professor in the department of microbiology and parasitology at the University of Toronto

cine is always progressing while in law there are few cases (unless one enters politics) where a precedent has not been established." The choice was medicine and McGill University. Later he obviously questioned the choice when he wrote: "... I cannot see why people live in Montreal when they can go to Toronto." The course included Greek and Latin as well as science and medicine. His introduction to parasites came in boarding houses. "I never know", he wrote, "whether I will get to sleep before the bugs begin to bite."

Graduating with a BA in 1898 and an MD in 1900, his mother urged him to study at once for his fellowship in the Royal College of Surgeons of London. He was more inclined to spend 2 years in a hospital and wait for something to turn up. Visions of practising medicine in Victoria continued to haunt him. "Don't wait for something to turn up", his mother urged. "Study for a definite purpose and keep on the watch and when anything turns up that may be an advantage to you seize for your purpose but do not wait for it."

Returning to Montreal in the autumn following graduation he became assistant surgical pathologist at the Royal Victoria Hospital under the well known Prof. J. George Adami. The salary was \$300 per year. He was soon to realize he said, "how little practical work I really know". Within months an opportunity arose that changed forever the direction of his life. The recently established (1899) Liverpool School of Tropical Medicine had available a scholarship that could be held by a colonial. Excellent references from his professors together with his interest meant that he was off to England in the autumn of 1901.

Although not enamoured with England he was impressed with the cosmopolitan mix of students at Liverpool and the interest in, and support for, research on parasitic diseases in Africa. He began to contemplate joining an expedition. Visions swirled through his head that he could become famous from future discoveries. Then he would return to Victoria and set up a practice near Fort and Douglas streets

"not too far from the sea". Hopes brightened on learning that he might accompany Dr. Joseph Everett Dutton to Gambia where the year before Dutton had described *Trypanosoma gambiense*. It is difficult for us, 80 years later and far removed from the scene, to visualize the primitive working conditions and the lack of communications, the distressing illness and mortality from sleeping sickness, and the poverty among the African natives who might receive a shilling a week, (although a few were rich with pounds of gold dust stored in demi-johns). "We are playing at a game of blind man's buff", Todd said. Nevertheless Dutton and Todd examined many patients, found trypanosomes in six of them and were increasingly convinced of their association with sleeping sickness. Transmission by tsetse flies was suspected although unproven. They also observed different trypanosomes in mice, horses and other animals.

Meanwhile King Leopold II of Belgium, hearing of the work of the school, invited it to send an expedition to the Belgian Congo, which he controlled. Dutton and Todd were selected. A gala luncheon with Liverpool dignitaries preceded the departure of the 12th expedition on Sept. 3, 1903 for Leopoldville. They planned to stay for 2 years. In summary, they examined hundreds of people for trypanosomes, established a system of quarantine, then turned their attention to relapsing fever, and described the spirochete, the causative agent, and showed that it was transmitted by ticks. Unknown to them Ross and Milne a few months before had associated the spirochete with the disease. Unfortunately both Dutton and Todd contracted the disease and Dutton died. On his return in 1905 Todd received the Order of Leopold II from a grateful king. He was appointed an assistant lecturer at the Liverpool school and in 1906 became director of tropical diseases at the Runcorn laboratory. Anxious to commemorate the name of Dutton he offered to give £1000 to establish a memorial fund if six others would do likewise.

Meanwhile interest in parasitology was stirring at McGill, inspired, I

believe, by the one time presence and interest of Sir William Osler, by then professor of medicine at Oxford.

In 1905 Todd was invited to lecture to the Medical Society at Oxford. He stayed with the Oslers. Speculation suggests this may have launched plans for a return to Canada. For in late 1906, Osler, on a visit to Montreal, discussed with Principal Peterson of McGill and Sir William MacDonald, the possibility of organizing a department of medical zoology to consider the whole range of parasitism. On Feb. 3, 1907 Osler wrote to Prof. Robertson of McGill advising of the conversation and suggesting that Todd, because of his work on ticks, would be a suitable candidate:

When in Montreal a few weeks ago I had a chat with Sir William MacDonald and Mr. Peterson on the possibility of organizing, in connection with the Agricultural College, an extensive department of medical zoology in which the whole subject of Parasitism should be considered. Sir William was anxious that I should see you, but I had only part of two days in Montreal. I promised him to get a scheme from Stiles of Washington, who is certainly the leading expert on parasites in the English-speaking world. The Department could be made a most important one and it has such close affiliations with disease that the same man could very well lecture on parasites in the medical school. There would be no lack of candidates for such a place, and there are one or two very good men available, particularly Todd who had done so much good work on the Ticks. I should not be surprised, however, if such a position were thrown open, that Stiles himself might be a candidate. I have asked Stiles to prepare a memorandum which I will forward to you.

Sincerely yours,
Wm. Osler.

A letter from Prof. Adami to Todd in 1907 advised of a possible position, and a later one that he had been appointed associate professor of parasitology beginning in 1908 at a salary of \$1000 a year in the department of pathology, bacteriology and parasitology. The appointment was considered prestigious. Principal Peterson referred at some length to it in his report to the Board of Governors for 1906-07:

One of the most important appointments

made in the Medical Faculty during the year was that of Dr. John L. Todd, B.A. (McGill) 1898, M.D. (McGill), 1900, who is to become Associate Professor of Parasitology. The reputation which Dr. Todd has gained throughout Europe by his study of the nature of "Sleeping Sickness" and other cognate diseases is the best guarantee that, in returning to his Alma Mater, he will bear his share in advancing the interests of scientific medicine. If our Medical Faculty is to keep up with the advances which are being made in other schools — and there is none more worthy to be in the very van of progress — it must be put in a position by appointments such as this to increase its already great reputation for research and investigation.

Todd was not forgotten by Liverpool, however, for in 1909 he received the degree of Doctor of Science, *honoris causa*, along with Charles Darwin, Guglielmo Marconi, Lord Roberts, and Lord Balfour. And in 1910 he returned to receive the school's highest honour, the Mary Kingsley Medal.

University life, then as now, had its frustrations. A fire at McGill caused shortage of space. Science buildings were in the course of construction. Work on a new medical building had not begun. Consequently on arrival in Montreal Todd was assigned space at MacDonald College, where, 24 years later, the Institute of Parasitology would be established.

While at McGill he travelled extensively in the United States and Europe. He went West to study swamp fever in horses. During a visit in 1910 to the new, endowed Rockefeller Institute Hospital, Todd was especially impressed with experimental transplants of organs in dogs. "Imagine in the future", he said "a person with heart disease will have his old one taken out and a nice fresh one from a sheep inserted in its place."

In 1911 he was off again to Africa accompanied by Dr. Simeon Burt Wolbach of Harvard University. They found trypanosomes in 1% of 2500 people they examined. They made blood smears from many reptiles, birds and mammals. Among these was a new species of *Leucocytozoon* called *toddi* by Sambon.

Absorbed though he was with his research and teaching of parasites his thoughts in 1909 were turning in

other directions too. The beauty and personal qualities of Marjory Clouston, the daughter of Sir Edward Clouston, general manager of the Bank of Montreal, attracted him. His marriage to her in December 1911 affected his life as profoundly as the scholarship to Liverpool — perhaps even more so. Always devoted to his own family and relatives, a similar happy relationship developed with his wife and the children that arrived in ensuing years. Farming and gardening became more and more absorbing at the expense of research in parasitology.

Then came World War I and enlistment. Rather than utilizing his experience in research, his duties as a major became administrative. This appeared to tax his energy, health and interest. In 1919 he wrote: "... microbes don't seem to be as important as they once did and again because I haven't the energy I once possessed ... I get more pleasure from farming at St. Anne than I do from anything — barring the children."

Nevertheless after the war he did grasp an opportunity, under the auspices of the American Red Cross, to lead an expedition to Poland with Dr. Wolbach to study and try to control the devastating outbreak of typhus fever that spread with the advancing Bolshevik troops. Their accomplishments were reported in a paper, "Etiology and Pathology of Typhus". For this, Poland awarded him the Order Polonia Restituta and the Canadian Red Cross elected him a member of its executive. His successful investigations in parasitology appeared insufficient to persuade McGill to provide adequate facilities for research. This and poor health lessened his active interest and he decided in 1924 to resign his position effective in 1925 to devote his time to his talented family. Following retirement he declined an invitation to become secretary of the health section of the League of Nations.

His dream of practising medicine in Victoria was never realized but McGill's foresight in launching parasitology marked it as a centre for expanding research in the discipline. A few years after his retirement

ACTIFED* Tablets/Syrup (triprolidine HCl-pseudoephedrine HCl) Antihistamine-Decongestant

Indications: The prophylaxis and treatment of symptoms associated with the common cold, acute and subacute sinusitis, acute eustachian salpingitis, serous otitis media with eustachian tube congestion, aerotitis media, croup and similar lower respiratory tract diseases, in allergic conditions which respond to antihistamines, including hay fever, pollenosis, allergic and vasomotor rhinitis, allergic asthma.

Precautions: Use with caution in hypertensive patients and in patients receiving MAO inhibitors. Patients should be cautioned not to operate vehicles or hazardous machinery until their response to the drug has been determined. Since the depressant effects of antihistamines are additive to those of other drugs affecting the central nervous system, patients should be cautioned against drinking alcoholic beverages or taking hypnotics, sedatives, psychotherapeutic agents or other drugs with CNS depressant effects during antihistaminic therapy. Rarely, prolonged therapy with antihistamines can produce blood dyscrasias.

Adverse Effects: None serious. Some patients may exhibit mild sedation or mild stimulation.

Overdose: Symptoms: Insomnia, tremors, tachycardia.

Treatment: (1) For antihistaminic action: If respiratory depression is severe, intubation and artificial respiration is better than using analeptic drugs. Convulsions should be treated with alcohol sponges or paraldehyde. (2) Pseudoephedrine: Adverse effects due to central action are reversed by the barbiturates. Methamphetamine to maintain blood pressure.

Dosage: Children over 6 years and adults: 10 mL (2 tsp.) of syrup or 1 tablet 3 times daily. Children 1-6 years: ½ tablet 3 times daily. Children 4 months to 6 years: 5 mL (1 tsp.) of syrup 3 times daily. Infants up to 4 months: 2.5 mL (½ tsp.) of syrup 3 times daily.

Supplied: Tablets: Each white, biconvex tablet 7.4 mm in diameter with code number ACTIFED M2A on same side as diagonal score mark contains triprolidine HCl 2.5 mg and pseudoephedrine HCl 60 mg. Available in packages of 12 and 24 tablets, bottles of 100 and 500 tablets.

Syrup: Each 5 mL of clear, lemon-yellow syrup contains: triprolidine HCl 1.25 mg and pseudoephedrine HCl 30 mg. Available in 100 mL and 250 mL bottles.

Additional prescribing information available on request.

*Trade Mark

W-1056



WELLCOME MEDICAL DIVISION
BURROUGHS WELLCOME INC.
KIRKLAND, QUE.

Prescribing Information

Lopresor® (metoprolol tartrate)

50 mg and 100 mg tablets
200 mg slow-release tablets

Therapeutic Classification

Antihypertensive and anti-anginal agent.

Actions

Metoprolol tartrate is a beta-adrenergic-receptor-blocking agent with predominant blocking effect on beta₁ receptors.

Indications

a) Mild and Moderate Hypertension:

Usually used in combination with other drugs, particularly a thiazide diuretic, however, may be tried alone as an initial agent in those patients whose treatment should be started with a beta-blocker rather than a diuretic. The combination of Lopresor with a diuretic or peripheral vasodilator has been found to be compatible and generally more effective than Lopresor alone. Incompatibility with other antihypertensive agents has not been found, experience is limited however.

b) Angina Pectoris

Lopresor is indicated in patients with angina pectoris due to ischemic heart disease.

Contraindications

Sinus bradycardia, second and third degree A-V block, right ventricular failure secondary to pulmonary hypertension, congestive heart failure, cardiogenic shock, anesthesia with agents that produce myocardial depression, e.g. ether and chloroform.

Warnings

a) **Cardiac Failure:** Special caution should be exercised when administering Lopresor to patients with a history of heart failure, since inhibition with beta-blockade always carries the potential hazard of further depressing myocardial contractility and precipitating cardiac failure. In patients without a history of cardiac failure, continued depression of the myocardium can lead to cardiac failure. At the first sign of impending cardiac failure, patients should be digitalized and/or given a diuretic and observed closely.

Lopresor does not abolish the inotropic action of digitalis on the heart muscle, however, the positive inotropic action of digitalis may be reduced by the negative inotropic effect of Lopresor when the two drugs are used concomitantly. The effects of beta-blockers and digitalis are additive in depressing A-V conduction. If cardiac failure continues, despite adequate digitalization and diuretic therapy, discontinue Lopresor therapy.

b) **Abrupt Cessation of Therapy with Lopresor:** Warn patients against abrupt discontinuation. There have been reports of severe exacerbation of angina, and of myocardial infarction or ventricular arrhythmias in patients with angina following abrupt discontinuation of beta-blocker therapy. The last two complications may occur with or without preceding exacerbation of angina pectoris. When discontinuation of Lopresor is planned in patients with angina, dosage should be gradually reduced over a period of about two weeks and the patient carefully observed. The same frequency of administration should be maintained. In situations of greater urgency, Lopresor should be discontinued stepwise, under conditions of closer observation. If angina markedly worsens or acute coronary insufficiency develops, it is recommended that treatment with Lopresor be reinstituted promptly, at least temporarily.

c) Various skin rashes and conjunctival xerosis have been reported. A severe syndrome (oculo-muco-cutaneous syndrome) whose signs include conjunctivitis sicca and psoriasisiform rashes, otitis, and sclerosing serositis has occurred with the chronic use of one beta-adrenergic-blocking agent (practolol) but has not been observed with Lopresor or any other such agent. Physicians should be alert to the possibility of such reactions and should discontinue treatment in the event that they occur.

d) Severe sinus bradycardia may occur, in such cases, dosage should be reduced.

e) Lopresor may mask the clinical signs of continuing hyperthyroidism or complications and give a false impression of improvement. Therefore, abrupt withdrawal of Lopresor may be followed by an exacerbation of the symptoms of hyperthyroidism including thyroid storm.

Precautions

a) Careful monitoring of patients with diseases associated with bronchospasm is mandatory and a bronchodilator must be administered concomitantly.

b) Administer with caution to patients subject to spontaneous hypoglycemia or to diabetic patients (especially those with labile diabetes) who are receiving insulin or oral hypoglycemic agents. Beta-adrenergic blockers may mask the premonitory signs and symptoms of acute hypoglycemia.

c) Adjust dosage individually when used concomitantly with other anti-hypertensive agents.

d) Closely monitor patients also receiving catecholamine-depleting drugs, such as reserpine or guanethidine. Lopresor should not be combined with other beta-blockers.

e) Appropriate laboratory tests should be performed at regular intervals during long-term treatment.

f) Lopresor should not be given to patients receiving verapamil. In exceptional cases, when in the opinion of the physician concomitant use is considered essential, such use should be instituted gradually, in a hospital setting, under careful supervision.

g) In patients undergoing elective or emergency surgery: Lopresor should be withdrawn gradually following recommendation given under Abrupt Cessation of Therapy (see WARNINGS). Available evidence suggests that the clinical and pharmacological effects of beta-

blockade induced by Lopresor are no longer present 48 hours after cessation of therapy.

In emergency surgery, effects of Lopresor may be reversed, if necessary, by sufficient doses of such agonists as isoproterenol or levaterenol.

h) **Usage in pregnancy and nursing mothers:** Lopresor crosses the placental barrier and appears in breast milk. It should not be given to pregnant women as it has not been studied in human pregnancy. If use of the drug is deemed essential in nursing mothers, the patient should stop nursing.

i) **Usage in children:** There is no experience with Lopresor in the pediatric age groups.

Adverse reactions

Cardiovascular: Congestive heart failure (see WARNINGS), secondary effects of decreased cardiac output which include: syncope, vertigo, lightheadedness and postural hypotension; severe bradycardia, lengthening of PR interval, second and third degree A-V block, sinus arrest, palpitations, chest pains, cold extremities, Raynaud's phenomenon, claudication, hot flushes.

Central Nervous System: headache, dizziness, insomnia, mental depression, lightheadedness, anxiety, tinnitus, weakness, sedation, vivid dreams, vertigo, paresthesia. **Gastrointestinal:** diarrhea, constipation, flatulence, heartburn, nausea and vomiting, abdominal pain, dryness of mouth.

Respiratory: shortness of breath, wheezing, bronchospasm, status asthmaticus.

Allergic/Dermatological (see WARNINGS): exanthema, sweating, pruritus, psoriasisiform rash.

EENT: blurred vision and non-specific visual disturbances, itching eyes.

Miscellaneous: tiredness, weight gain, decrease in libido.

Clinical Laboratory: The following laboratory parameters have been rarely elevated: transaminases, BUN, alkaline phosphatase and bilirubin. Thrombocytopenia and leucopenia have been reported rarely.

Symptoms and Treatment of Overdosage

Symptoms: bradycardia, congestive heart failure, hypotension, bronchospasm, hypoglycemia.

Treatment: Discontinue Lopresor and observe patient closely. In addition, if required, the following therapeutic measures are suggested.

1. Bradycardia, and hypotension:

Initially 1-2 mg of atropine sulfate should be given intravenously. If a satisfactory effect is not achieved, a pressor agent such as norepinephrine may be administered after preceding treatment with atropine.

2. Heart Block: (second or third degree)

Isoproterenol or transvenous cardiac pacemaker.

3. Congestive heart failure:

Conventional therapy.

4. Bronchospasm:

Aminophylline or a beta₂-agonist.

5. Hypoglycemia:

Intravenous glucose.

Large doses of isoproterenol can be expected to reverse many of the effects of excessive doses of Lopresor. However, the complications of excess isoproterenol, e.g. hypotension and tachycardia, should not be overlooked.

Dosage and Administration

a) **Hypertension:** Initial Dose: 50 mg b.i.d. If adequate response is not seen after one week, dosage should be increased to 100 mg b.i.d. In some cases the daily dosage may need to be increased by further 100 mg increments at intervals of not less than two weeks up to a maximum of 200 mg b.i.d., which should not be exceeded.

Usual Maintenance Dose: 150-300 mg daily. When combined with another antihypertensive agent which is already being administered, Lopresor should be added initially at a dose of 50 mg b.i.d. After 1 or 2 weeks the daily dosage may be increased if required, in increments of 100 mg, at intervals of not less than 2 weeks, until adequate blood pressure control is obtained.

b) **Angina pectoris:** Initial Dose: 50 mg b.i.d. for the first week. If response is not adequate, the daily dosage should be increased by 100 mg for the next week. The need for further increases should be closely monitored at weekly intervals and the dosage increased in 100 mg increments to a maximum of 400 mg/day in 2 or 3 divided doses.

Usual Maintenance Dosage: 200 mg/day. Dosage Range: 100-400 mg per day in divided doses. A dose of 400 mg/day should not be exceeded.

c) **Slow-release Lopresor SR 200 mg:** Lopresor SR 200 mg is intended only for maintenance dosing in those patients requiring doses of 200 mg per day. Treatment must always be initiated and individual titration of dosage carried out using the regular tablets. Patients with hypertension or angina pectoris on a maintenance regimen of one 100 mg tablet twice daily may be changed to one Lopresor SR 200 mg tablet taken in the morning. Lopresor SR 200 mg tablets should be swallowed whole.

Availability

Lopresor

Tablet: 50 mg: Film coated, light red, capsule-shaped tablet, embossed 51 and scored on one side and GEIGY on the other.

Tablet: 100 mg: Film coated, light blue, capsule-shaped tablet, embossed 71 and scored on one side and GEIGY on the other.

Lopresor SR

Slow-release Tablet: 200 mg: Film-coated, light yellow, round tablet, embossed GEIGY on one side and CDC on the other. Product monograph supplied on request.



G-2070

Geigy

Mississauga, Ontario
L5N 2W5

officials at McGill began discussions with the heads of the National Research Council and the Empire Marketing Board concerning the feasibility of establishing at McGill an Institute of Helminthology. These culminated in the creation of the Institute of Parasitology in 1932. Dr. Todd was, for a time, on the associate committee of the National Research Council which was responsible for supervising the institute.

This brief outline overlooks much that should be included in a detailed chronicle of Dr. Todd's life — an analysis of his conscientious research, experiences in Africa, his kind and philanthropic nature, his family life and social connections.

His advancing years were marred by repeated attacks of asthma and a heart attack from which he recovered. Delightful winter holidays in South Carolina for many years and his fondness for the outdoors undoubtedly helped to restore his health.

At the outbreak of World War II he returned from Europe where he had spent 5 years with his family and tried to make his farm at Senneville self supporting. He had received many honours and had travelled widely. He had worked with, and knew many famous men. He did not make friends easily but he had a few notable ones, John McCrae, William Osler, Charles Sherrington, Max Aiken, among others. Surprisingly he appears to have had little contact with contemporary Canadians, Seymour Hadwen, Edward Arthur Watson, for example, who were expanding boundaries of parasitology.

By 1949 the life of John L. Todd had come full circle. Having concluded a delightful fishing trip on the Gaspé with a friend he decided, against the wishes of his family, to drive home late at night. Nearing Montreal his car took to the ditch and hit a tree. His life ended, as it began, by the side of the road. ■

I wish to thank the Hannah Institute for the History of Medicine for a grant to examine the feasibility of preparing a history of parasitology in Canada. I also thank Dr. Todd's daughter, Mrs. Briget Fialkowski for access to letters of her father and notes on family history.